STATEMENT OF BASIS (AI No 34078)

for draft Louisiana Pollutant Discharge Elimination System permit No LA0124079 to discharge to waters of the State of Louisiana

THE APPLICANT IS The Administrators of the Tulane Educational Fund
Tulane National Primate Research Center (TNPRC)
6823 St Charles Ave
New Orleans, LA 70118

ISSUING OFFICE Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
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PREPARED BY Molly McKean

DATE PREPARED June 16, 2008

1 PERMIT STATUS

A Reason For Permit Action

Permit revocation and reissuance of a current Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5 year term

B NPDES permit NPDES permit effective date N/A
NPDES permit expiration date N/A

C LPDES permits – LAG532229
LPDES permit effective date February 15, 2008
LPDES permit expiration date November 30, 2012

D Date Application Received May 16, 2008

2 FACILITY INFORMATION

A FACILITY TYPE/ACTIVITY biomedical research facility

TNPRC is a biomedical research facility and USDA Class B animal dealer licensed to sell and purchase wild/exotic animals for research purposes The facility operations include biomedical research a primate breeding colony, animal housing and administrative/support services It consists of a complex of research and support buildings (North Campus) and the primate living areas, the wastewater treatment facilities and a buffer zone (South Campus) There are currently a total of 92 laboratories on North Campus A population of approx 4000 brood primates are kept in 66 corrals on South Campus All stormwater from the South Campus area is contained and routed to the treatment system Sheetflow stormwater (undeveloped areas and parking lots) from North Campus will be covered under the SWPPP plan and will be discharged to the Abita River

The North Campus wastewater sources are predominately sanitary but also include boiler and cooling tower blowdown and lab glassware final rinsate These discharges are routed through a large package treatment plant prior to discharge to the first oxidation pond

South Campus wastewater is primarily sanitary wastewater from the resident trailer and stormwater from the corrals including primate metabolic waste and food waste The majority of these corrals have grassy floors and are not washed down There are a few cement floored corrals (corn-cribs and the baboon area) that have occasional washdown discharges

Treatment of wastewater includes extended aeration, an oxidation/retention pond system, a 17 acre constructed wetland, a rock bed filter and contact chlorination/dechlorination The system has two discharge points (1) from the de chlorination chamber after circulating through the complete system, (2) from the overflow weir at the inlet to pond 8 prior to entering the constructed wetland The overflow is designed to be operated once the constructed wetland reaches capacity Stormwater from the first inch of rainwater will always be treated Large rainfall events may produce more stormwater than the constructed wetland can adequately handle In these instances, the first inch of rainfall or more will be captured and routed to the wetland subsequent stormwater will bypass the constructed wetland and be discharged through Outfall 004 This will allow for complete treatment of first flush stormwater without exceeding the capacity of the system Animal carcasses and tissue waste are digested in the WR^2 tissue digestor Solid wastes and hazardous lab wastes/wastewater are stored in lab packs and disposed of off site

B FEE RATE
1 Fee Rating Facility Type minor
2 Complexity Type I
3 Wastewater Type II
4 SIC code 8733 and 0279

C LOCATION - 18703 Three Rivers Road Covington St Tammany Parish
Latitude 30° 27 12" Longitude 90° 05 27 '

3 OUTFALL INFORMATION

Outfall 001

Discharge Type	sanitary wastewater from the package treatment plant on South Campus
Treatment	package treatment plant
Location	at the point of discharge from the package treatment plant adjacent to the monitoring facility on South Campus
Flow	less than 2500 GPD
Discharge Route	the Bogue Falaya River via local drainage

Outfall 002

Discharge Type	sanitary wastewater from the package treatment plant on North Campus
Treatment	package treatment plant
Location	at the point of discharge from the package treatment plant adjacent to the command center on the North Campus
Flow	less than 2500 GPD
Discharge Route	the Bogue Falaya River via local drainage

Outfall 003

Discharge Type	north campus wastewater including kitchen/lavatory drains, sanitary wastewater, primate cage room washdown, laundry wastewater, cage wash, steam condensate from the autoclaves and medical/infectious clinical waste processor, tissue digestor wastewater, boiler blowdown, cooling tower blowdown laboratory glassware rinse water, corn crib washdown, distilled and reverse osmosis process water and stormwater, and south campus stormwater (from corral area, contains animal metabolic wastes and food scraps)
Treatment	extended aeration, oxidation ponds, constructed wetland, filtration, and contact chlorination
Location	at the point of discharge from the dechlorination chamber of the treatment system located on South Campus, prior to mixing with any other waters
Flow	0 0509 MGD
Discharge Route	the Bogue Falaya River via local drainage

Outfall 004

Discharge Type	north and south campus stormwater, treatment plant overflow for rain events greater than 1 inch
Treatment	extended aeration and oxidation ponds
Location	at the point of discharge from the overflow weir at the inlet structure to pond 8 of the treatment system prior to mixing with any other waters
Flow	variable rainfall dependent
Discharge Route	Bogue Falaya River via local drainage

Note This outfall is an overflow from the retention pond feeding the constructed wetland When operated properly, this discharge should consist of stormwater only

4 RECEIVING WATERS

STREAM the Bogue Falaya River via local drainage

BASIN AND SEGMENT Lake Pontchartrain Basin, Segment 040804

DESIGNATED USES
a primary contact recreation
b secondary contact recreation
c propagation of fish and wildlife
d outstanding natural resources (ONRW) limited to Confluence of East and West Prong to La Hwy 437 North of Covington per footnote 12 of LAC 33 IX 1123 Table 3

Per the above definition these discharges are not to the scenic/ONRW section of the Bogue Falaya River The Department of Wildlife and Fisheries (WLF) concurs with this determination This facility is located near the confluence of the Abita River and the Bogue Falaya River There are historic stormwater flows (from undeveloped areas and parking lots) to the Abita that will be covered by the SWPPP requirements LWF has determined that a Scenic Rivers Permit is not required for these discharges This facility was constructed in the mid 1960s As such stormwater discharges from the facility pre date the Scenic Rivers Act and the Abita River s Scenic Designation (1997)

5 TMDL STATUS

Subsegment 040804, Bogue Falaya River Headwaters to Tchefunte River is listed on LDEQ's Final 2006 303(d) List as impaired for pathogen indicators and mercury To date no TMDLs have been completed for this waterbody A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a TMDL Until completion of TMDLs for the Lake Pontchartrain Basin, those suspected causes for impairment which are not directly attributed to the biomedical research facility point source category have been eliminated in the formulation of effluent limitations and other requirements of this permit Additionally, suspected causes of impairment which could be attributed to pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water quality standard were also eliminated This facility is not expected to be a source of mercury Standard fecal coliform limits are included in this permit Discharges in compliance with these limitations should not cause or contribute to further impairment in the receiving stream

6 PROPOSED EFFLUENT LIMITS

BASIS See Rationale below

7 COMPLIANCE HISTORY/COMMENTS

A OEC –

May 8 2007 – complaint received of foul odors and discharge of waste materials to the Bogue Falaya River An inspection revealed that the facility was operating a no discharge system but in the process of constructing an upgraded treatment system

B DMR Review/Excursions –

There are no DMRs on file as of June 26 2008 I spoke with the consultant for the facility The Class I permit authorization was originally issued in April 2007 (reauthorized February 2008) To date, Outfall 002 has not been put into service Outfall 001 services the maintenance/monitoring building for the new constructed wetland treatment system To date this building is not in regular use and the plant has not discharged The facility intends to submit no discharge DMRs for their annual sampling requirement ASAP

8 EXISTING EFFLUENT LIMITS

Outfalls 001 and 002 – sanitary wastewater

Parameter	Limitation		Monitoring Frequency
	Monthly Avg Mg/l	Weekly Avg Mg/l	
Flow	-	Report	Annually
BOD_5		45	Annually
TSS		45	Annually
Fecal coliform Colonies/100 ml		400	Annually
pH	6 0 min	9 0 max	Annually

9 ENDANGERED SPECIES

The receiving waterbody, Subsegment 040804 of the Lake Pontchartrain Basin, has been identified by the U S Fish and Wildlife Service (FWS) as habitat for the gulf sturgeon and Louisiana Quillwort, which is listed as an endangered species LDEQ has not submitted this draft permit to the FWS for review in accordance with a letter dated October 24, 2007 from Boggs (FWS) to Brown (LDEQ) As set forth in the Memorandum of Understanding between the LDEQ and the FWS, and based on information provided by the FWS, LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse effect upon the gulf sturgeon or the Louisiana quillwort The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat

10 HISTORIC SITES

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required

11 TENTATIVE DETERMINATION

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in the application

12 PUBLIC NOTICES

Upon publication of the public notice a public comment period shall begin on the date of publication and last for at least 30 days thereafter During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing

Public notice published in

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

Rationale for TNPRC

1 Outfalls 001 and 002 intermittent discharge of sanitary wastewater (estimated flow is less than 2500 GPD)

Pollutant	Limitation Mo Avg	Weekly Avg (mg/l)	Reference
Flow	Report	Report	LAG530000
BOD_5	-	45	LAG530000
TSS		45	LAG530000
Fecal coliform Colonies/100 ml	-	400 (Daily Max)	LAG530000
pH	6 0 su (min)	9 0 su (max)	LAG530000

Treatment package treatment plant

Monitoring Frequency annually

Limits Justification These limits are carried over from Schedule A of the LAG530000, Class I Sanitary General Permit

2 Outfall 003 intermittent discharge of north campus wastewater including kitchen/lavatory drains, sanitary wastewater primate cage room washdown, laundry wastewater, cage wash, steam condensate from the autoclaves and medical/infectious clinical waste processor, tissue digestor wastewater, boiler blowdown cooling tower blowdown, laboratory glassware rinse water corn crib washdown, distilled and reverse osmosis process water and stormwater, and south campus stormwater (from corral area contains animal metabolic wastes and food scraps) (estimated flow is 0 0509 MGD)

Pollutant	Limitation Mo Avg	Weekly Avg (mg/l)	Reference
Flow	- -	Report	LAG570000, BPJ
BOD_5	10	15	LAG570000 BPJ
TSS	15	23	LAG570000 BPJ
Oil & Grease	--	15	LAG570000 BPJ
Fecal coliform Colonies/100 ml	200	400 (Daily Max)	LAG570000 BPJ
Soaps/Detergents	Record	-	BPJ
pH	6 0 su (min)	9 0 su (max)	LAG570000, BPJ

Treatment extended aeration oxidation ponds, constructed wetland filtration and contact chlorination

Monitoring Frequency monthly

Limits Justification This wastewater is composed primarily of stormwater runoff from the animal confinement areas It is expected to have strong sanitary characteristics Therefore, Class IV sanitary limits have been applied through BPJ Oil and grease limits are included based on the Class IV permit and standard LDEQ stormwater limits Recording of soaps and/or detergents used is based on wash wastewater requirements in the Light Commercial General Permit

3 Outfalls 004 intermittent discharge of north and south campus stormwater treatment plant overflow for rain events greater than 1 inch (estimated flow is variable, rainfall dependent)

Pollutant	Limitation Mo Avg	Daily Max (mg/l)	Reference
Flow	--	Report	LAG570000
BOD_5	10	15	LAG570000, BPJ
TSS	15	23	LAG570000, BPJ
Oil & Grease		15	LAG570000, BPJ
Fecal coliform Colonies/100 ml	200	400	LAG570000, BPJ
pH	6 0 su (min)	9 0 su (max)	LAG570000 BPJ

Treatment package treatment plant

Monitoring Frequency 1/discharge event

Limits Justification These limits are based on BPJ and the Class IV sanitary general permit Based on the operational design described in the application this discharge should be post first flush stormwater only However the wastewater may still have some slight sanitary wastewater characteristics Therefore, it is necessary that controls for BOD_5 and Fecal Coliform colonies are applied in addition to standard stormwater controls BOD_5 will control oxygen demanding parameters in place of traditional TOC stormwater limitations Additionally, the washwater and stormwater from the animal corrals is expected to carry some suspended solids loading Therefore TSS limits from the Class IV permit are included An Oil & Grease limit is included based on the Class IV permit and standard LDEQ stormwater limits The post first flush stormwater should have minimal contamination and therefore shall comply with the more stringent Class IV permit limitations The statistical basis has been changed from Weekly Avg to Daily Max based on the intermittent nature of the discharge

BPJ Best Professional Judgement
su Standard Units

A SWP3 is included in the permit because in accordance with LAC 33 IX 2511 A 1 e, stormwater discharges that are significant contributors of pollutants to waters of the state In accordance with LAC 33 IX 2511 B 14 a k facilities classified as SIC code 8733 and 0279 are not considered to have storm water discharges associated with industrial activity However due to the possibility of stormwater contamination from feed and metabolic waste a SWP3 requirement is included in this permit

The SWP3 shall be prepared, implemented, and maintained within (6) months of the effective date of the final permit The plan should identify potential sources of storm water pollution and ensure the implementation of practices to prevent and reduce pollutants in the storm water discharges associated with industrial activity at the facility (see Narrative Requirements for the AI)